

## **EXHIBIT 2**

# **DOCUMENT SOUGHT TO BE SEALED**

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UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA  
SAN FRANCISCO DIVISION

ORACLE AMERICA, INC., )  
                                )  
                                )  
Plaintiff,                 )  
                                )  
                                )  
vs.                           ) Case No.:  
                                )  
GOOGLE, INC.,              )  
                                )  
Defendant.                 )  
                                )

ATTORNEYS' EYES ONLY  
VIDEOTAPED DEPOSITION OF ADAM B. JAFFE, Ph.D.  
San Francisco, California  
Thursday, March 10, 2016  
Volume 1

Reported by:  
RACHEL FERRIER, CSR No. 6948  
Job No. 2265294  
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1 sorry.

2 Q Thank you.

3 Do you consider yourself to have the expertise to  
4 perform quantitative econometric analysis of causal  
5 relationships in the markets you studied in relation to  
6 this case?

7 A Yes.

8 Q Did you consider, in preparing your opinions in  
9 this matter, whether or not you should perform any  
10 quantitative econometric analyses in connection with  
11 studying causal relationships in the markets in this  
12 case?

13 A Yes.

14 Q Why did you elect not to do that?

15 A We investigated what kind of data might be  
16 available regarding, for example, the different products  
17 or product categories or licensing products that we were  
18 looking at with respect to market harm and tried to  
19 figure out whether data were available that would allow  
20 you to do an econometric analysis related to the causal  
21 relationship between Android's copying and the success  
22 or failure of the Java products, and we really couldn't  
23 find appropriate data that would allow you to do that.

24 Q When you say that you couldn't find appropriate  
25 data that would allow you to do that, what data are you

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1 referring to?

2 A Well, what you would need to do to be able to do  
3 that is you would really need to do analysis essentially  
4 estimating the -- what an econometrician would call the  
5 "demand equations" for the two products and look at the  
6 cross-elasticity of substitution between one product and  
7 another product that requires that you have data on  
8 specific sales numbers and prices of particular products  
9 over time that will allow you to estimate that system,  
10 and there really is not any kind of complete data on --  
11 or we -- we couldn't identify any kind of -- of  
12 comprehensive data on sales and the prices and the  
13 attributes of the relevant products.

14 Q When you say "we" couldn't find the data, who is  
15 the "we" you are referring to?

16 A Well, I talked about it with the Keystone people.  
17 They were the ones who investigated what kind of data  
18 sources are available on these things.

19 Q And they reported to you they weren't able to  
20 find the data you referred to?

21 A Well, they -- no, I wouldn't say it that way.  
22 What I would say is they told me the kinds of things  
23 that they had located, and we talked about whether those  
24 were appropriate and concluded that it wasn't going to  
25 make sense.

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1 Q Okay. Would you like to take a moment to check  
2 that?

3 A That would be Robert Zeidman, Footnote 212 in the  
4 corrected version, 1457.

5 THE VIDEOGRAPHER: Dr. Jaffe, would you please  
6 raise your microphone. Thank you.

7 MS. ANDERSON: Okay. Thank you.

8 Q So that's Footnote 212 to paragraph 160 in  
9 Exhibit 1457?

10 A Correct.

11 Q Okay. Thank you.

12 What is it that you understand is the copied  
13 material at issue in this litigation?

14 A My understanding is stated there in  
15 paragraph 160. The API declaring code and, in addition,  
16 the structure, sequence, and organization of the  
17 components of the 37 API packages.

18 Q What -- strike that.

19 Do you have an understanding of what the  
20 copyrighted work is that's at issue in this litigation?

21 A I mean, not in a legal/technical sense. In a  
22 descriptive sense, I understand that these 37 API  
23 packages were part of Java SE and that, in the manner  
24 described in paragraph 160, which I don't pretend to  
25 really understand beyond the words themselves, that --

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1 Q And when you say "any licensing opportunity for  
2 Java," what do you mean by "Java"?

3 A I don't know how to clarify it further than the  
4 remainder of that answer but to say we have said earlier  
5 that "Java" is the language, the virtual machine, and  
6 the APIs.

7 What I'm talking about here now are licensing  
8 opportunities for -- that include the -- the APIs, in  
9 particular the infringed APIs, and will also include,  
10 potentially, other aspects of the language, the virtual  
11 machine -- I haven't focused on that, but I'm looking at  
12 licensing opportunities, whatever other things they  
13 invoke that do invoke the APIs.

14 Q So is it fair to say that when you are talking  
15 about a licensing opportunity for Java for purposes of  
16 your analysis, you are talking about something broader  
17 than any licensing opportunity for the Java SE platform?

18 A Yes.

19 Q And then if you could take a look now at  
20 paragraph 319, the last sentence you state, quote: I  
21 consider the effect on the market for license  
22 derivatives of the Java platform, end quote.

23 What do you mean by "licensed derivatives" in  
24 this sentence?

25 A I think I just mean that, over time, Sun and

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1 AFTERNOON SESSION

1:21 P.M.

3 THE VIDEOGRAPHER: We are back on the record at  
4 1:21 p.m.

5 BY MS. ANDERSON:

6 Q Good afternoon, Dr. Jaffe.

7 A Good afternoon.

8 Q So let's talk a little bit about your reply  
9 report --

10 A Okay.

11 Q -- the last report that you served, which is  
12 Exhibit 1459.

13 Is it fair to say that, among other things in  
14 your reply report, you offered criticisms of  
15 Dr. Leonard's report?

16 A Yes.

17 Q And, in particular, you opine in your reply  
18 report that Dr. Leonard's proposed counterfactual  
19 scenarios failed to account for what you call the  
20 dynamic nature of platform competition, particularly in  
21 the mobile application platform space, and that those  
22 counterfactuals were not instructive as to the  
23 measurement of economic harm.

24 A Yes.

25 Q All right. So in your opinions in your reply

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1 report, you talk about, among other things, your view  
2 that this particular market was highly volatile; fair?

3 A Yes.

4 Q And that that market could be characterized as  
5 what you call a dynamic ecosystem; right?

6 A Yes.

7 Q And because of that, you explain in your reply  
8 report that you believe platform competition of the kind  
9 you studied for your market harm analysis is extremely  
10 challenging to model and predict, particularly when  
11 market outcomes are highly uncertain as they were for  
12 Android at its launch.

13 A So your question had, at the very beginning of  
14 it, a "because," and I don't think you listed, in your  
15 question, all of the reasons that I give in my report  
16 for my conclusion that it would be very difficult to  
17 sort of post facto predict what would have happened.

18 Q Okay. So to back up, would you agree with the  
19 statement that platform competition is extremely  
20 challenging to model and predict?

21 A Yes.

22 Q And do you agree that that's particularly true  
23 when market outcomes are highly uncertain as they were  
24 for Android at its launch?

25 A Yes.

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1 Q And is it your view that constructing a reliable  
2 nonspeculative economic counterfactual is a challenging  
3 exercise, especially in a highly competitive platform  
4 market?

5 A Yes.

6 Q And is it also your opinion that predicting  
7 success in platform markets with certainty is nearly  
8 impossible?

9 A Yes.

10 Q And would you also agree that you haven't offered  
11 any opinions in your reports to opine on what actually  
12 would have happened had Android not used unlicensed Java  
13 APIs in Android?

14 A So I'm not sure I would agree I haven't offered  
15 any opinions. I've talked about certain things that I  
16 think were more likely and things that I think were less  
17 likely.

18 I have not attempted to construct a specific  
19 scenario or description of what the market would have  
20 looked like in the absence of the infringing behavior.

21 Q So, for example, in your reply report, you state  
22 that, quote: Had Google not launched Android when and  
23 in the manner it did, the mobile platform market might  
24 have tipped to another entrant, such as Apple,  
25 Microsoft, or a new entrant, end quote?

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1 A That's correct.

2 Q And that's one of your opinions; right?

3 A Yes.

4 Q But you haven't concluded whether it would have  
5 tipped to a different participant; right?

6 A Not in an absolute sense.

7 Q Nor have you sought to pick which participant it  
8 would have tipped to should it have tipped to a  
9 particular participant; right?

10 A That is correct.

11 Q Let's take a look, if we could jump back to  
12 Exhibit 1457, your corrected report. Let's look at  
13 paragraph 24.

14 A Oh, paragraph 24, sorry.

15 Q Yes, which is on page 12, and I'm just going to  
16 have both of your opinions open because I have -- easier  
17 for me to cite the cites for you. All right.

18 So taking a look at paragraph 24, in your opinion  
19 you state that, quote: In 2007, approximately  
20 80 percent of mobile phones worldwide incorporated the  
21 licensed Java platform, end quote.

22 Do you see that?

23 A Yes.

24 Q Which licensed Java platform are you referring to  
25 in this sentence?

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1       lost actual or potential licensing opportunities due to  
2       Android.

3           Q     With respect to the information reflected in  
4       Table 7, what, if anything, did you do or did you have  
5       Keystone do to investigate the extent to which any of  
6       the OEMs or carriers identified in the left-hand column  
7       of Table 7 chose to move product over to Android for  
8       reasons having nothing to do with the 37 Java APIs?

9           A     Well, I don't really see how they could have done  
10      that, since it's my opinion that there probably would  
11      not have been an Android as we know it had it not been  
12      for Google's infringement of the 37 APIs, so I didn't go  
13      any further in trying to figure out what it was about  
14      Android that they chose -- that made them choose to go  
15      in that direction.

16          Q     Did you do anything to investigate whether or not  
17      any of the OEMs or carriers identified in the left-hand  
18      column of Table 7 decided to cease using a Java platform  
19      because of problems with the Java platform?

20          A     Yes. I mean, I think in each of these cases we  
21      tried to learn what we could about what was going on,  
22      and I think taken -- any one of these cases taken  
23      individually, I think, in many cases -- well, at least  
24      in some cases, we have only a limited understanding of  
25      what was going on.

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1 Q All right. In your report, Exhibit 1457, you  
2 talk about the Java API packages enabling the Android  
3 team to quickly launch a technically stable product, and  
4 that's in paragraph 215.

5 What do you mean by "technically stable product"  
6 in that sentence?

7 A I have only a general sense. I assume it means  
8 that the product works, you know, the same way in  
9 different -- in different contexts, and developers can  
10 know what's going to happen when they -- when their app  
11 interacts with it, and things like that. Pretty  
12 general.

13 Q Who wrote your reports in this matter?

14 A I wrote them, together with the people at  
15 Keystone.

16 Q Did you draft them in the first instance?

17 A I did the initial outline. We talked about  
18 topics we wanted to cover. After talking about topics  
19 we wanted to cover, we kind of divided up the work, and  
20 some of the sections were initially drafted by Jeff or  
21 Sam, and then I reviewed those, and we passed them back  
22 and forth and rearranged them and cut and pasted and so  
23 forth.

24 Q Do you know whether paragraph 215 is a paragraph  
25 you drafted in the first instance?

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1 A I would guess it probably is not.

2 Q Okay. Why do you guess that?

3 A Because it's about things that I have only a very  
4 general understanding of, as we just discussed.

5 Q How would you characterize the -- the portions of  
6 your report as areas where you would only have a general  
7 understanding of? Is there a way you can bucketize --

8 A When --

9 Q -- these?

10 A Sorry. Apologize.

11 Q Go ahead.

12 A When it gets into the -- the stuff that borders  
13 on the technical issues of how the software works and  
14 how different kinds of software differ from each other,  
15 that's not something I know much about, and so I -- you  
16 know, I'm -- I'm -- I want to -- I believe that I  
17 understand it well enough to -- to figure how it relates  
18 to my opinion, but it's not my strong suit.

19 Q Okay. Earlier today, you talked about having a  
20 discussion with someone at Oracle to give you an  
21 understanding of issues related to licensing under  
22 OpenJDK.

23 Do you remember that testimony?

24 A Yes.

25 Q About -- strike that.

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1 A Okay.

2 Q And your testimony was that it's harder to say;  
3 right?

4 A I did say that, yes.

5 Q All right. And you said that you didn't know  
6 whether, for example, Oracle's SavaJe phone could have  
7 been successful in the absence of Android; right?

8 A Yes.

9 Q And you said that you didn't know whether some  
10 other products might have been able to get themselves  
11 established in the absence of Android; right?

12 A I don't remember what I said. What I said was  
13 what I said.

14 Do you want me to answer it again?

15 Q Well, do you agree that that was part of the  
16 answer you gave in explaining whether or not you had  
17 offered an opinion that Android had harmed the market  
18 for Java SE?

19 A I don't -- no, I don't agree because I don't  
20 remember what I said.

21 Q Okay. Is there any place in your reports where  
22 you specifically lay out an opinion as to whether or not  
23 Android harmed the market for Java SE?

24 A I think we covered this earlier today.

25 In my report, I have not attempted to distinguish

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4 I, the undersigned, a Certified Shorthand  
5 Reporter of the State of California, do hereby certify:

6 That the foregoing proceedings were taken before  
7 me at the time and place herein set forth; that any  
8 witnesses in the foregoing proceedings, prior to  
9 testifying, were placed under oath; that a verbatim  
10 record of the proceedings was made by me using machine  
11 shorthand which was thereafter transcribed under my  
12 direction; further, that the foregoing is an accurate  
13 transcription thereof.

14 I further certify that I am neither financially  
15 interested in the action nor a relative or employee of  
16 any attorney or any of the parties.

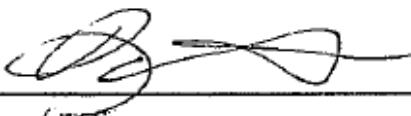
17 IN WITNESS WHEREOF, I have this date subscribed  
18 my name.

19

20 Dated: March 11, 2016

21

22



23

24

RACHEL FERRIER

25

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